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AUTHOR	Hughes, Caroline; And Others
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ABSTRACT

Text, illustrations and exercises are utilized in these six learning modules to instruct patients and the general public in exercise and rehabilitative techniques. The first module, "Exercise and Your Life" by Caroline Hughes, distinguishes between static and dynamic exercise and discusses the benefits of exercise. The second module, "Low-Back Exercise Program" by Robert E. Meade, presents five exercises to be used in a home care program for relieving lower back pain. The third module, "Back Massage or Oh, My Aching Back!!" by Frances A. Lupi, provides step-by-step instructions for giving a relaxing back massage. The fourth module, "Hand and Arm Care after Your Mastectomy" by Karen Bailey, explains the functions of the lymph nodes and why their removal limits the body's ability to fight infection in the involved arm and hand and then discusses the prevention of swelling and infection in that area. The fifth module, "Aerosol Therapy Treatment," was prepared by Richard Urband to teach respiratory patients how to assemble, load, and operate a compressor/nebulizer therapy unit. The sixth module, "Family Help for the Stroke Patient" by Marjorie A. Griffith, reviews the causes of stroke, its physical effects, and the hygienic, exercise, and psychological factors to be considered in home care for the stroke victim. Each module provides reinforcement exercises and a post-test. (JP)

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HEALTH INSTRUCTION PACKAGES:

CONSUMER -- EXERCISE AND REHABILITATION

Modules prepared by:

Caroline Hughes, RN

Robert E. Meade, L.P.T.

Frances A. Lupi, RPT

Karen Bailey

Richard Urband, ARRT

Marjorie A. Griffith, RN

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A Project of the League for Innovation in the Community College

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EXERCISE AND YOUR LIFE

by

Caroline Hughes, R.N.

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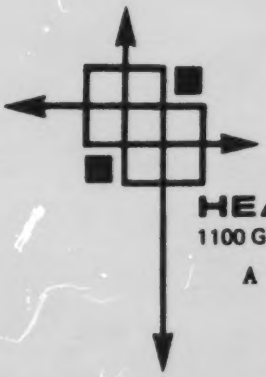
TITLE:	Exercise and Your Life
AUTHOR:	Caroline M. Hughes, R.N.
INSTITUTION:	Scottsdale (Arizona) Community College
INTENDED STUDENTS:	Public
ESTIMATED WORKING TIME:	20 minutes
MATERIALS NEEDED:	None

FIELD TEST COPY



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INTRODUCTION

There are serious needs for the adults in this modern world to exercise. The following packet will give you information for a proper and safe experience for you.

To stimulate yourself to exercise regularly and safely, you will distinguish characteristics of dynamic and static exercise, list physical and mental benefits of exercise, demonstrate how to take your pulse, state your personal reasons for exercising, and choose a time for exercising.

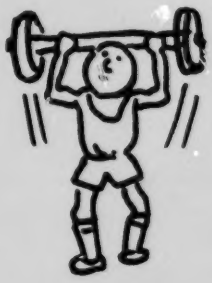
Your body, no matter its size, is a complete system. It works all together doing many things all at once. You breathe in and out, your food digests after each meal and your muscles perform work without you taking any notice of it. Your heart beats and your legs and arms move at every command. Exercise is as important to your body as all other activities.

You have heard much about exercise. In the following pages I will show you the how, when, and where of exercise. We will talk about it, draw pictures and ask questions.

There are two basic types of exercise:

Dynamic

Static



During dynamic exercise your muscles stretch and shorten to a beat, depending on what you are doing. If you are running the beat is fast but if you are walking the beat is slow. This is the best kind of exercise.

During static exercise your muscles are held in a stretched or shortened state over a long period of time. This is not a good kind of exercise. It makes your blood pressure go up.

Practice Question #1

a. My blood pressure will go up when I do _____ kind of exercises.

b. T. _____ F. _____ Dynamic exercise lets my whole body work together.

Feedback

You are correct if you answered static for a. and true for b.

Now that you know the two types of exercises and which type is best for you, what can you imagine the benefit of exercise would be? Let's go on and find out.

Exercise that is performed at least three times a week will improve your muscle strength and increase your ability to do more while expending less energy. Your mind will feel clear and you will not be so tired. Exercise is your body's recreation.

Pick out the kind of exercise you like to do the best.

Practice Question #2

If you exercise regularly, what do you feel your benefits would be?

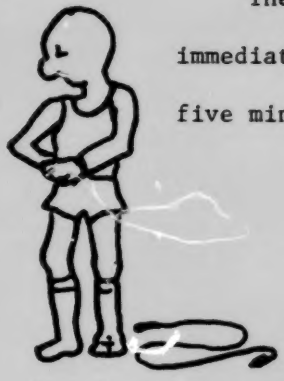
Feedback

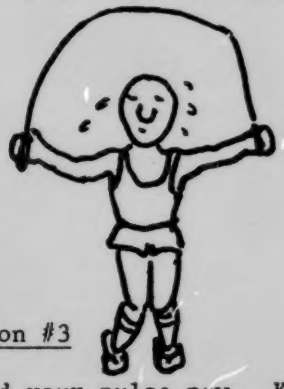
You are progressing nicely if you mentioned improved muscle strength, increased physical ability, clear mind, and not tiring so easily. You understand the process if you remembered any of the benefits. Shall we go on?

To measure how much work you are doing, you must take your pulse. You hold your left wrist in your right hand, placing your middle finger just under the thumb. You can feel your heart beat. This will give you an idea of how much work your heart is doing when you exercise.

Feel your pulse for 10 seconds, then multiply that number times six. That will give you your heart beat in one minute.

The time to take your pulse is before your start exercise, immediately when you stop, and after your have rested for three to five minutes.





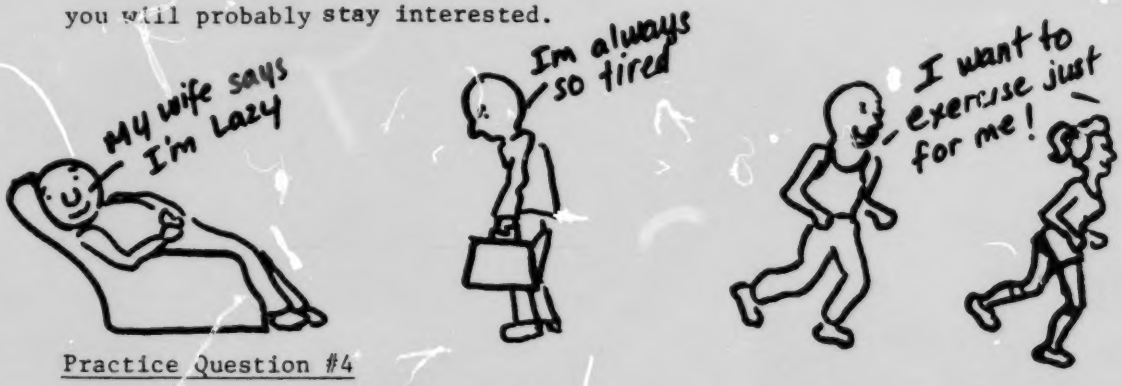
Practice Question #3

Try to find your pulse now. Keep trying, and pressing with your right fingers, until you can feel the pulse.

Feedback

You'll want to practice this skill until you can count your pulse easily. It's important to your exercise program.

Now we come to a very personal part of the lesson. That is, why do you wish to exercise? We all exercise for different reasons. It is important that you know why you want to. If your reasons tend to be of a competitive nature, that is not good. Try to find or identify a reason that is just yours. If it is your own reason, you will probably stay interested.



Practice Question #4

Am I exercising to help myself or to please others? Why am I exercising?

Feedback

If you are exercising to please yourself, to reach a personal goal you're well on your way. We have talked about measuring exercise and why we want to exercise. Now the last hurdle is finding time to exercise.

How will you fit exercise into your already crowded days' activities? You will have a constant quarrel with yourself over this matter. Find a time when you can be alone or with a family member or close friend. If you are with someone else, try to maintain quiet. This is a time for exercise, not chatter. Look at your daily schedule. Morning, noon, or evening? All are good. Remember not to exercise directly after eating a meal. That can cause stomach cramps.

Practice Question #5

What time of the day would you like to exercise? Do you wish to exercise alone or with someone?

Feedback

Whichever your choice, it's correct if it fits your needs and helps you stick to a regular exercise program.

Take a minute here to decide which type of exercise you will do at the regular time you've selected. When you've decided, turn the page for a brief Self-Check.

SELF-CHECK

1. What are four benefits of an exercise program?

2. How do you take your own pulse?

3. Identify your reasons for exercising.

4. Construct a day's activities. Where have you placed your exercise period?

SELF-CHECK ANSWER KEY

1. 1) Improved muscle strength

   2) Increased physical ability

   3) Clear mind

   4) Not tiring so easily
   You might also have given some personal reasons like a decrease in your smoking, etc.

2. Middle finger of right hand on left wrist below thumb. Press firmly and count the beat you feel for 10 seconds. Multiply by 6.

3. and 4. The success of your exercise program depends upon reasons that are important to you and a regular exercise time that is convenient for you.

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LOW-BACK EXERCISE PROGRAM

by

Robert E. Meade, L.P.T.

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TITLE OF PACKAGE:	Low-Back Exercise Program
AUTHOR:	Robert E. Meade, L.P.T.
INSTITUTION:	Veterans Administration Hospital, Salisbury, N.C.
INTENDED STUDENTS:	Patients with chronic low-back problems
ESTIMATED WORKING TIME:	20 minutes
MATERIALS NEEDED:	Firm floor, preferably with rug; straight chair.
REVISED:	May 17, 1977

NOTE: This unit was written for patient's use in hospital and continuance at home. References to performing exercises "in bed" or "on the floor" should be interpreted according to doctor's assessment of patient's condition.

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LOW-BACK EXERCISE PROGRAM

PURPOSE:

The purpose of this packet is to teach you what to do about what is wrong with your back. You are one of thousands of our population today who have back problems. In order to take care of your back and to help prevent back injuries and/or relieve the discomfort of this very aggravating and disabling condition, it will help you to know what you can do about it here in the hospital and then later when you are home. In this program you will learn specific exercises to help relieve your back pain and establish a Back-Care Program.

OBJECTIVES:

1. To be able to carry out the five exercises described and illustrated in this packet: 1) pelvic tilt; 2) knee to chest; 3) both knees to chest; 4) curl up; 5) sitting stretch.

2. To realize the importance of the five exercises and develop a confidence in them for your own benefit.

These exercises are designed to strengthen your back and stomach muscles as well as to stretch weak and tight back muscles. Do them on a FIRM surface - a floor rug is perfect. Do them at least TWICE a day - in the morning and in the evening before going to bed.

WET HEAT in the form of a Hot Shower or Warm Tub Bath helps relax the back muscles and makes exercising more comfortable and effective.

Carry out each exercise Slowly and Smoothly - avoid "jerky" movements and RELAX BETWEEN EACH EXERCISE.

Carry out each exercise to THE POINT OF PAIN - do not try to force them beyond that point.

Start out by doing five of each exercise then increase the number by one until you can do them ten times.

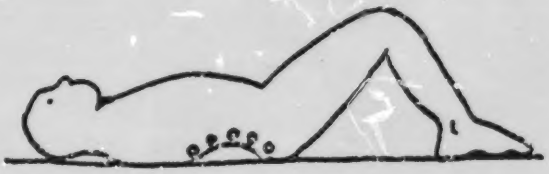
THAT TAKES CARE OF THE INTRODUCTION - NOW LET'S GET STARTED!!

EXERCISE 1

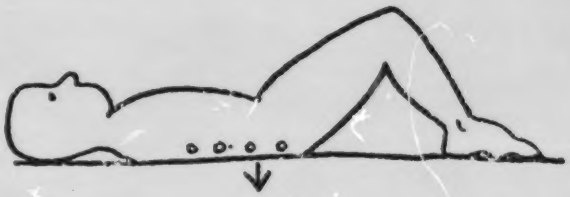
PELVIC TILT (Read all directions before trying exercise).

Hips and knees bent, feet flat on the floor, hands at side. Pull abdomen up and in, pinching the buttocks together and pressing the lower part of the back to the floor, tilting the pelvis. Hold for five seconds, then rest.

The pelvis is the area around the hips and buttocks. Try to pull your hips up and flatten the lower part of your back against the floor. Place your hand in the arch of your back to see if your back is being flattened or is arched. If the arch in your lower back becomes tight and makes a bigger arch during the exercise, you are moving your pelvis the wrong way.



Can you feel the low back flatten as you do the exercise? If not, try again with less effort - don't pull so hard!! Relax and try it very slowly.



ASSUME THE POSITION SHOWN IN THE DRAWINGS AND PERFORM THE EXERCISE SLOWLY BEFORE ANSWERING THE FOLLOWING QUESTION AND READING FURTHER.

1. a) Do you feel that you are carrying out the exercise correctly?

YES _____ NO _____

You should not feel any discomfort and the movement of the pelvis should be a slow and gentle one with a short rest period after each effort.

LET'S TRY THE NEXT EXERCISE

EXERCISE 2

(Read all directions before trying exercise.)

KNEE TO CHEST:

Knees bent. Pull left knee to chest, clasping hands around the knee and Slowly stretch. Do Only to Point of Pain or until you feel a pull in the small of the back. Return to starting position and repeat with other leg.

Pull your left knee back toward your chest - any pain? If you have pain stop at the point of pain - remember?

Return the leg to the original position and relax before going on to the next step.

Now, the other leg - bring the knee back toward the chest - pull it back slowly as far as you can - just a nice easy stretching feeling in the leg and low-back. O.K.? Remember about the pain if you have any - DO NOT GO BEYOND THE POINT OF PAIN

ASSUME THE POSITION SHOWN IN THE DRAWING AND PERFORM THE EXERCISE SLOWLY.

2. a) Any problems?

YES _____ NO _____

If you experienced a great deal of pain, we'd better eliminate the exercise for now. We will try it later when your back condition improves -- and it will improve.

2. b) If you had no problems, repeat the exercise five times with each leg. Check the answer sheet.

It is best to exercise one leg and then the other each time - that is, right leg, left leg, right leg, etc., rather than the right leg five times and then the left leg five times.

As you get better and feel more confident, try to increase the exercise gradually up to 10 times.

EXERCISE 3

(Read the entire page before performing exercise.)

BOTH KNEES TO CHEST:

Hips and knees bent. Pull both knees toward chest with hands clasped on knees, spreading knees toward shoulders. At the same time that the knees come up, lift head and shoulders off bed. Keep back in contact with the bed or floor. Slowly return feet to starting position.

Pull both knees back just as you did the one leg at a time in the last exercise -- only this time direct the knees out just a little toward your armpits (this will allow a better stretch of the back muscles). Easy now -- not too fast. Now hold the knees back there for just a few seconds. Can you feel the muscles relax? Any pain? If you have pain, back off to the position where the pain stops.

Now let the legs go back slowly to the starting position with the feet flat on the floor and relax. Let those muscles rest just a few seconds before starting the exercise again.

ASSUME THE POSITION SHOWN IN THE DRAWING AND PERFORM THE EXERCISE SLOWLY BEFORE READING FURTHER.

That stretch should have felt good -- without pain.

Remember to go to the point of pain -- not beyond it.

3. a) Were you able to hold the knees up against your chest for a few seconds? YES _____ NO _____

You should have been able to feel some of that tightness in the back loosen up a little.

b) Repeat the exercise five times and think about trying to increase it to 10 times when you are able. Note your success on the answer sheet.

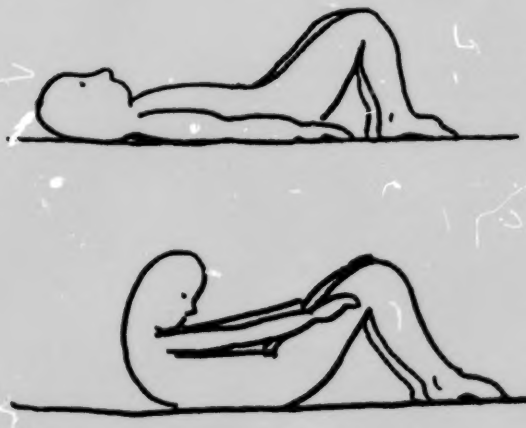
GOOD WORK!! Only two more exercises to go!!

EXERCISE 4

Read all your instructions for The Curl Up before trying the exercise. This exercise will help give those stomach muscles of yours more tone. Yes, the exercise will do just that - we all need this one whether we have a low-back problem or not.

CURL UP:

Hips and knees bent, feet flat on floor, arms stretched forward. Bring chin to chest, lift head and raise shoulders from the floor in a curling fashion. Slowly uncurl. If any pain occurs, go only to that point and return to starting position.



Place your chin on your chest and reach forward with your arms until you feel your stomach muscles tighten. Don't worry about coming all the way up into a sitting position - just get your head and shoulders off the floor. Not as easy as it looks, is it? Hold it for just 3 - 4 seconds.

Return to the starting position slowly with the head and shoulders uncurling so that the shoulders strike the floor first and then the head. Now relax before starting the next one. Tired? Well, rest a few seconds.

ASSUME THE POSITION SHOWN IN THE DRAWING AND PERFORM THE EXERCISE SLOWLY BEFORE READING FURTHER.

4. a) Any pain?

YES _____ NO _____

Remember what we said about that!!! Don't be discouraged if you had a hard time even getting your head off the floor. This just means we are on the right track and this is definitely one of the exercises you need.

b) Try again and do the exercise slowly - five times if you can make it without too much effort or pain. Check the answer sheet.

If it is easy, go on to 10 times. If the exercises seem difficult for you, be patient. They will become easier after a few practice sessions.

ON MORE TO GO !!!

EXERCISE 5

Read all the instructions for the Sitting Stretch before trying the exercise. Notice you change positions for the first time. Sit in a straight chair - not an overstuffed one - just like in the picture.

SITTING STRETCH:

Sit on a hard chair. Let your body drop until your head is down between your knees. Pull your body back up into a sitting position while tightening your abdominal muscles. Relax and repeat the exercise.

This one is easy!! Lean forward as far as you can and still be comfortable - all the way down (like in the picture) if you can. If you can get your head all the way down to your knees, good! If you can't, do not worry about it.

Straighten up so your back is resting against the straight back of the chair - no helping from your hands or arms, now!! Use your back muscles. Don't come up quite so fast - just slow and easy. That wasn't so bad, was it?

ASSUME THE POSITION SHOWN IN THE DRAWING AND PERFORM THE EXERCISE SLOWLY BEFORE READING FURTHER.

5. a) Were you really tight in the back?

YES _____ NO _____

If you were not, you are unusual and in good shape. Remember to stop if you feel pain.

b) Let's do it again - 5 to 10 times, and check the answer sheet.

You might find that this is a good procedure to follow to the point of leaning on your knees with your elbows to rest your back at work or at home when your back begins to feel tight and tired. Just lean forward and let those muscles relax. It should make you feel better.

THAT IS ALL THERE IS TO THE EXERCISES. LET'S TURN TO THE NEXT PAGE AND SEE HOW YOU DO ON THE POST-TEST.

POST TEST

QUESTIONS:

1. Start with Exercise Number I and go through each exercise SLOWLY one time. Are you able to carry out the Five Exercises Correctly?
2. What do you do when you have pain during an exercise?
3. Are you flattening your low-back (the arch) for your Pelvic Tilt Exercise?
4. Do you have a great deal of difficulty doing any of the exercises?
5. Do you feel that these exercises just might help your back condition?
6. How far forward do you go when performing Exercise Number 5?
7. What do you do after each exercise?
8. What can help relax the back muscles making you more comfortable and the exercises more effective?
9. Where is the best place to do the exercises?
10. How many times a day should you do these exercises?
11. How many times should you do each exercise at first?
12. Do you feel confident enough to teach someone else these exercises?

ANSWERS:

1. If you do them correctly (determined by your CONCERNED Physical Therapist), then you passed this part.
2. Stop! Exercise only to the POINT of PAIN - Not Beyond it!!
3. "Yes" (You had better be sure!)
4. "No, I do not think so," will be acceptable if you cannot say just, "No."
5. "YES" - "I THINK" - "I HOPE SO" or "THEY BETTER" are all acceptable.
6. HEAD TO YOUR KNEES or HEAD ALMOST TO YOUR KNEES.
7. REST before starting the next one.
8. MOIST HEAT - A hot tub bath or shower
9. ON THE FLOOR
10. TWICE A DAY, morning and evening before going to bed.
11. FIVE TIMES at first, then work to ten.
12. "YES" - "MAYBE" or "I THINK SO" will all be accepted as correct.

ACHIEVEMENT OF OBJECTIVES???????

Well, do you think you achieved the objectives we described on page 1? Did you do well on your test questions? You should have been able to answer at least 9 out of the 11 questions correctly. Maybe you should read the instructions over once again to be sure you understand them thoroughly.

In addition to the questions, if you were able to perform the exercises properly (by the standards of your CONCERNED PHYSICAL Therapist), you are well on your way to starting a program that will definitely help your back condition. Good Luck and Keep Up Your Exercises!!!

ANSWER SHEET TO PRACTICE QUESTIONS

1. YES _____ NO _____

---

2. a. YES _____ NO _____

b. "Knee to Chest" done five times?

YES _____ NO _____

---

3. a. YES _____ NO _____

b. "Both Knees to Chest" done five times?

YES _____ NO _____

---

4. a. YES _____ NO _____

b. "The Curl Up" done five times?

YES _____ NO _____

---

5. a. YES _____ NO _____

b. "Sitting Stretch" done five times?

YES _____ NO _____

POST-TEST ANSWER SHEET

1. YES _____ NO _____

2. _____

_____

3. YES _____ NO _____

4. YES _____ NO _____

5. _____

6. _____

7. _____

_____

8. _____

_____

9. _____

10. _____

11. _____

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BACK MASSAGE or OH, MY ACHING BACK!!

by

Frances A. Lupi, RPT

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TITLE OF PACKAGE:	Back Massage, or Oh, My Aching Back!!
AUTHOR:	Frances A. Lup[illegible], RPT
INSTITUTION:	De Anza College, Cupertino, Calif.
INTENDED STUDENTS:	1. Any lay person (consumer) who would like to learn how to give a good back rub for relaxation purposes. 2. Health care students; i.e. physical therapists, physical therapist assistants, nurses, nurses' aides, etc.
ESTIMATED WORKING TIME:	30 minutes
MATERIALS NEEDED:	Flat surface; 2 pillows; 1 towel; lubricant (ordinary hand cream, lotion, oil or powder); two people
PREREQUISITES:	1. Health students: Position is Everything in Life, Parts I & II; Mechanics of Massage - recommended 2. All others: no prerequisites
REVISED:	Nov. 15, 1977

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INTRODUCTION

How many times have you felt like this?

How many times have you wished that you could have a nice, relaxing back rub - - - - - or that you could give someone a good, relaxing massage to the back.

Well - - - - that's exactly what I hope you will learn to do in this package. I expect that, by the time you finish this package, you will be able to help your father, wife, boyfriend or anyone gain a greater degree of relaxation after a long, hard day. You CAN do that, if you can learn how to give a GOOD, effective back massage.

ATTENTION STUDENTS:

If you are a student, learning this technique for use on future patients, you should have completed the packages entitled "Position is Everything in Life": Part I & Part II, and "The Mechanics of Massage."

ATTENTION LAY CONSUMERS:

If you are wanting to learn this procedure only so that you can do it on your family or friends, then you need not have worked through any other packages.

Now you're ready to begin: Go to it ⟹

Massage is a useful tool for helping people to relax. You probably already know that having someone massage your back has a very soothing and relaxing effect on you.

In order to give a good massage it is necessary to use a variety of strokes. Each stroke is different from the other and is used for a different reason. Each stroke has its own name.

There are three basic strokes used in massage of the back. The first stroke is called effleurage (ef-lure-ahge). This stroke is described as a gliding of the hands over the area that you are massaging, in this situation: the back. Effleurage is the first stroke that is used when giving any massage. In other words, the first purpose of effleurage is that it <u>always starts</u> the massage. In addition to starting the massage, the other purposes of effleurage are:

To distribute the massage lubricant (hand lotion, cream, oil, or powder) which is always used when applying massage.

To change to another type of stroke. Effleurage is always done between the different stroke types.

To end the massage. Effleurage is almost always the last stroke used. (You will not learn about the exception to this rule in this package).

To get the person accustomed to the touch of your hands.

1. A. Write a description of effleurage.

B. List the 5 purposes of effleurage.

a.

b.

c.

d.

e.

Answers

1. A. Effleurage is described as a gliding of the hands over the area that is to be massaged. Its purposes are to:

B. Start a massage.

End a massage.

Distribute the massage lubricant.

Change to another type of stroke.

Get the person accustomed to the touch of your hands.

If you answered correctly -- that's great!!! -- proceed. If you need more understanding you might want to re-read page 1.

The second stroke used in massage of the back is called petrissage (pet-ris-sahge). This stroke is used in order to manipulate the tissues and muscles that lie beneath the skin. It is a kneading action of the hands which gently squeezes the muscles and tissues. The purpose of petrissage is to "milk" the underlying tissues to help get rid of excessive fluids or waste materials that often remain stagnant in these tissues. It is this accumulation or stagnation of fluids or waste materials in our muscles that makes it difficult for us to relax.

2. A. Describe petrissage.

B. What is the purpose of petrissage?

Answers

The description of petrissage is a kneading action of the hands which gently squeezes the muscles and tissues - The purpose of petrissage is to "milk" the muscles and tissue of stagnant fluids or waste products.

If your answers were correct, proceed to the next exercise.

The last stroke you need to know is called friction. This stroke is described as a deep, straight downward pressure, using the pad or ball of the thumb. Friction is used in order to reach the muscles that lie very deep, such as the deep back muscles. This type of stroke also is used when you want to massage 1. The spaces that lie near joints, and,

2. Around scar tissue that forms when the skin is cut or torn. Scar tissue often makes the skin feel tight, and friction can help to prevent this tightening up of the skin.

3. A. Write a decription of friction.

B. List the 3 purposes of friction.

a.

b.

c.

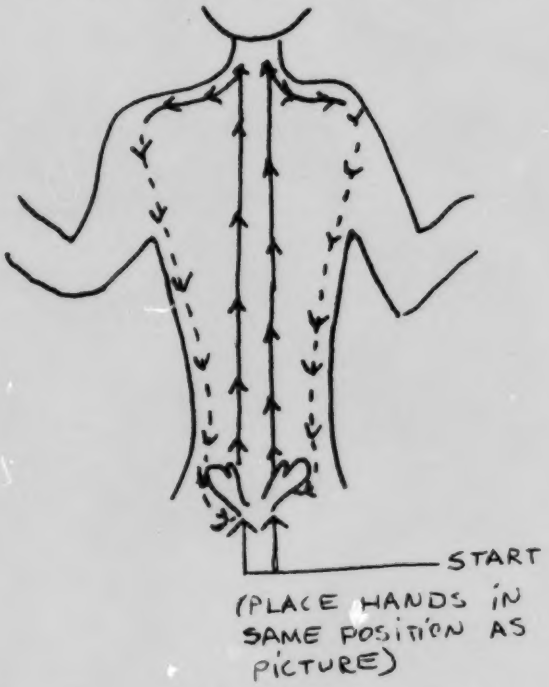
Answers

Friction is a deep, straight downward pressure of the thumb. The purposes of friction are:

a. To reach muscles/tissues that lie very deep.
b. To massage joint spaces.
c. To massage around scar tissue.

EFFLEURAGE

Now let's talk about how the effleurage stroke is applied to the back. Look at the following diagram and follow it by just sliding your hands over a table top or flat surface.

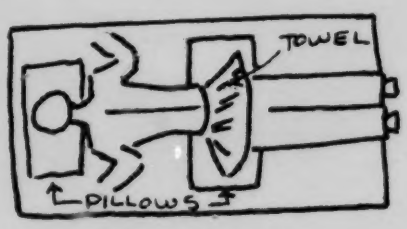


- Place the palm side of your hands and fingers on the person's back, just below the waist, with one hand on each side of the backbone (see diagram). Move up either side of the backbone, all the way to the hairline at the top of the neck. Time your speed as follows Count from 1 to 5 = cover area from start to hairline. Count 6,7,8 = Cover area across shoulders. Count 9 to 14 = return to start. Count so that each number takes about 1/2 second.
- Move your hands back down the neck and across the top of the shoulders.
- Move your hands down the sides of the back until you return to the starting point.
- Repeat steps 1, 2, & 3 about 5-10 times.

Your hands should remain in contact with the back throughout the massage. Your pressure should be light at first, and should get firmer with each sequence. You should attain a firmness that is comfortable for the patient. When applying effleurage, your pressure in the area of the solid line (see diagram) should be firmer than it is in the dotted line area. In fact when your hands are returning down the sides of the back (step 3) they should be just touching the skin; not actually pressing down on it.

4. Have your partner remove all clothing from the back area and lie down on his/her stomach. Place one pillow under the hips and one under the head. Protect his/her clothing below the waist by placing a towel over it and tucking the towel edge into your partner's waistband. See illustration:

TOP VIEW:



Put some lubricant in your hands (about 1 tablespoon full), and rub your hands together (just enough to get the lotion or cream on both of your hands). Now do the effleurage stroke on your partner, just like you practiced it on the tabletop.

Check all of the following that you did:

a. _____ Started just below the waist.

b. _____ Moved your hands up either side of the backbone.

c. _____ Moved hands all the way to the hairline.

d. _____ Moved hands down the neck and across the top of the shoulders.

e. _____ Moved hands down the sides of the back.

f. _____ Repeated the sequence 5-10 times without letting your hands lift off your partner's skin (not for 1 second)!

g. _____ Pressure was light on the 1st sequence and got heavier with each succeeding sequence (ask your partner).

h. _____ Pressure was heavier along the backbone, neck and tops of shoulders than it was when you returned along the sides of the back (ask your partner).

i. _____ You used enough lubricant so that your hands slid smoothly throughout the entire time.

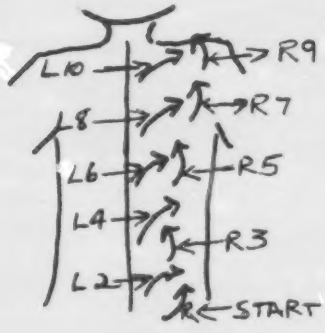
If you did all of the above, proceed with the package.

PETRISSAGE

Petrissage immediately follows effleurage. You should move right into this type of stroke when you finish your effleurage without lifting your hands from your partner's back.

Begin with both hands on the right half of the back just below the waist between the backbone and the side.

Petrissage is done by moving the hands alternately in small half-circles as you move up the side of the back, as follows:



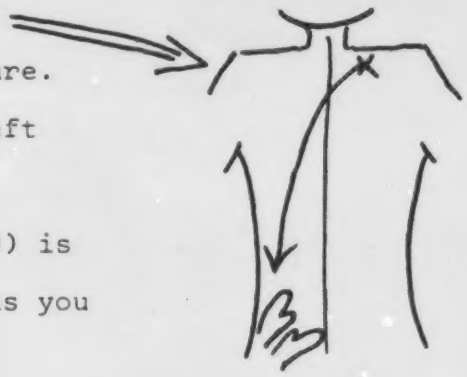
OR

Key: R=right hand

L=left hand

(Numbers indicate stroke sequence).

5. Begin by moving the right hand as indicated at the start position in the picture. Do not remove your right hand from the skin when you finish this first maneuver. Just slide it up the back a little as you do stroke #2 with the left hand. Proceed up the right side of the back, alternating your right and left hand, without ever losing contact with the skin. Your pressure should be deep enough so that you are actually creating movement of the skin and tissue under and between your hands. As you move along your pressure should feel <u>good</u> to your partner. Ask him/her! Once you have finished the right side of the back, including the top of the shoulder, slide your hands down and across to the left side of the back and repeat the same procedure. The number of right and left hand strokes that you do (the picture indicates 10) is not important. Do as many as you need to cover the area.



Once you have finished the left side of the back, repeat the entire sequence for about 10 minutes.

If you have done the procedure correctly, you would have done the following:

a. _____ Maintained contact with hands throughout procedure.

b._____ Moved your right and left hand separately, not at the same time.

c._____ Made small half circles with each hand.

d._____ Covered the entire left and right halves of the back, from just below waist to tops of shoulders.

e._____ Used pressure that felt good to partner (ask him/her).

f._____ Observed that skin and tissues were moving under your hands.

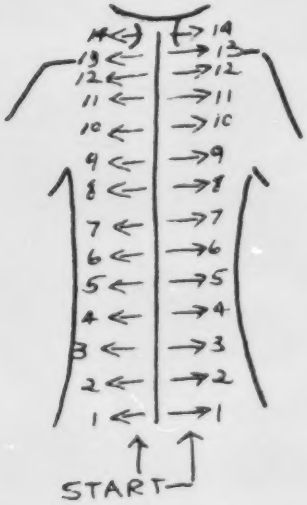
g._____ Had enough lotion to allow hands to move (not stick to skin), but not so much lotion that skin felt "slippery."

If you have checks on each of the above lines, proceed . . . . .

FRICTION

When you have completed the petrissage strokes, return both of your hands (without lifting off skin) to the original starting point (see picture).

Do 2 or 3 effleurage strokes, as you did in exercise #4. After these effleurage strokes you are ready to start friction. Begin at the starting point (see picture above). Place each thumb (front or pad part) right next to the backbone (right thumb on right side, left thumb on left side) -- see following picture:



(DISTANCE BETWEEN ARROWS (i.e., 1 & 2, 2 & 3, 3 & 4, ETC.) SHOULD BE ABOUT 1 INCH.)

6. Press down into the tissue: Your pressure should be deep, but should not <u>hurt</u>. Keeping your pressure <u>constant</u>, move each thumb in the direction of the arrows. Cover a sideward distance of about 2 inches. Both thumbs move at the

same time. When you reach the top of the neck (at the hairline), return to start, by sliding the hands down, and repeat the sequence. Do this about 3 times.

When you finish 3 sequences of friction, do about 5 effleurage strokes. At this point you are finishing the back massage. This means that your pressure should decrease with each effleurage stroke. In other words, effleurage stroke #1 should be deeper than #5. Gently lift your hands off the back. Remove any excess lotion with the towel.

To be sure that you did this exercise correctly, check the following list:

a. _____ Did 2 or 3 effleurage strokes before starting friction.
b. _____ Started friction just below waist, ended at hairline.
c. _____ Moved both thumbs at same time.
d. _____ Used front or pad part of thumb.
e. _____ Moved thumbs sideward for about 2 inches.
f. _____ Did not lift hands from skin -- ever.
g. _____ Ended with effleurage, about 5 strokes.
h. _____ Effleurage pressure went from deep to light.
i. _____ Removed excess lotion from skin.
j. _____ Partner reported that procedure felt good.

At this time you have learned the basic strokes used in massage of the back. You have learned their description, purposes, sequence and application. If you feel unsure of any of these things review the exercises before proceeding.

7. Give someone a back massage.

If you have done the procedure correctly you will have:

1) Started with partner lying comfortably on his/her stomach.

2) Used the strokes in the following sequence:

   a. Effleurage

   b. Petrissage

   c. Effleurage

   d. Friction

   e. Effleurage

3) Applied pressure as follows:

   a. Beginning effleurage = light to deep

   b. Petrissage and friction = deep enough to make partner feel <u>good</u>.

   c. Ending effleurage = deep to light

4) Used enough lubricant so that your hands moved easily over the skin (did not slip and slide, nor did they stick) throughout the massage.

5) Started each sequence just below the waist.

6) Never allowed your hands to lose contact with the skin, from beginning to end of the massage.

7) During effleurage and friction both hands moved at the same time.

8) During petrissage hands moved alternately (first one then the other).

9) Asked for and received information from your partner about how comfortable the stroking and pressure was.

10) Adjusted pressure according to feedback - so that the entire massage felt gooooood - and NEVER HURT.

11) Your partner should feel like this

POST-TEST

1. The basic strokes used in massage of the back are:

   a.

   b.

   c.

2. List the purpose(s) of each of these strokes:

3. The following are descriptions of massage strokes. Write the name of the correct massage stroke after each description:

   a. Deep pressure downward, applied with either the thumb or finger tips: _____

   b. Gliding movement of the palm side of the hand over the area that is being massaged: _____

   c. A kneading action of the hands which gently squeezes the muscle and tissues: _____

4. How much pressure should you use when giving a back massage?

5. When giving a back massage you should use the strokes in the following sequence:

   a.

   b.

   c.

   d.

   e.

6. Using the information you have learned from this package, give someone a complete back massage.

ANSWERS TO POST-TEST

1a. Effleurage

b. Petrissage

c. Friction

2a. Effleurage - Starts and ends massage.
Used between strokes - or to change strokes
Distributes lubricant
Gets person accustomed to your touch

b. Petrissage - "Milks" muscles and tissues of stagnant fluids and waste.

c. Friction - Reaches tissues that lie very deep
Reaches joint spaces

3a. Friction
b. Effleurage
c. Petrissage

4. Enough so that person feels good and strokes do not hurt - begin and end with light pressure.

5a. Effleurage
b. Petrissage
c. Effleurage
d. Friction
e. Effleurage

6. If you have done the procedure correctly you will have:

1) Started with partner lying comfortably on his/her stomach.

2) Used the strokes in the following sequence:

a. Effleurage

b. Petrissage

c. Effleurage

d. Friction

e. Effleurage

3) Applied pressure as follows:

a. Beginning effleurage = light to deep

b. Petrissage and friction = deep enough to make partner feel good.

c. Ending effleurage = deep to light

4) Used enough lubricant so that your hands moved easily over the skin (did not slip and slide, nor did they stick) throughout the massage.

5) Started each sequence just below the waist.

6) Never allowed your hands to lose contact with the skin, from beginning to end of the massage.

7) During effleurage and friction both hands moved at the same time.

8) During petrissage hands moved alternately (first one then the other).

9) Asked for and received information from your partner about how comfortable the stroking and pressure was.

10) Adjusted pressure according to feedback - so that the entire massage felt gooooood - and NEVER HURT.

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HAND AND ARM CARE AFTER YOUR MASTECTOMY

by

Karen Bailey
Lauren Richardson, Illustrator

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TITLE:	Hand and Arm Care After Your Mastectomy
AUTHOR:	Karen Bailey
INSTITUTION:	South Amboy Hospital and Community Mental Health Center Keyport, N.J.
INTENDED STUDENTS:	Patients; nursing
ESTIMATED WORKING TIME:	30 minutes
MATERIALS NEEDED:	None
REVISED:	Oct. 1, 1977

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INTRODUCTION

You have recently had a Mastectomy and are adjusting to many things. One area you now need to learn is how to take care of the hand and arm on the side where your breast was removed. This package will teach you some important things you can do.

During the operation, your doctor removed your breast and some glands in your chest and armpits called lymph nodes. Removing these nodes is important to help prevent the spread of the cancer that was in your breast.

When you finish this package, you will know how to care for your operated arm and hand (we'll call it the involved arm and hand) so you can prevent infection and keep swelling down. You will also learn what the lymph drainage system is and what it does for you. You will learn that your doctor removed a part of your lymph drainage system and why. You will learn why swelling and infection are things you will now want to be more careful of.

PRACTICE EXERCISE #1

Before I tell you what you can do to take care of your arm and hand, I'd like to tell you a little more about the lymph nodes I mentioned before.

Lymph nodes are only one part of another circulation system you have called the lymph drainage system. This lymph drainage system is made up of lymph vessels and lymph nodes that together do two important things for you.

Lymph vessels are like channels that reach to all parts of your body. They collect any water that leaks out of your blood stream, germs which cause infection, and any harmful substances that may be in your tissues.

COLLECTING THIS WATER PREVENTS SWELLING IN THE TISSUES OF YOUR BODY.

Lymph nodes are tiny glands grouped in your neck, armpits and groin. They filter the germs and harmful substances collected by the lymph vessels.

FILTERING GERMS AND HARMFUL SUBSTANCES PREVENTS THE SPREAD OF INFECTION AND DISEASE TO OTHER PARTS OF YOUR BODY.

Practice Question #1 Select the best answer (s).

The lymph drainage system is important because it:

1) prevents fluids from collecting in tissues.
2) returns blood to the heart.
3) protects your body from the spread of infection and disease.

Answer

If you selected 1 and 3, you are correct. The lymph drainage system removes germs and harmful substances and stops their spread. It also prevents water from pooling in tissues.

Let's go on.....

PRACTICE EXERCISE #2

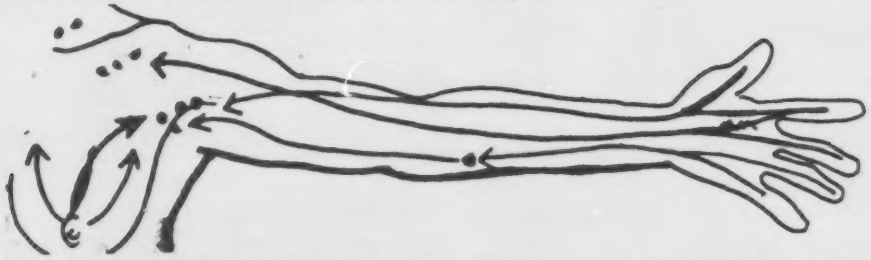
You might remember that I said that the lymph drainage system is throughout your whole body --- this includes your breast. The lymph vessels that drain your breast carry the drainage to nodes in your armpit. These same nodes also filter the lymph drainage from your hand and arm.

Practice Question #2

Where do the lymph vessels carry the drainage in this diagram? Use arrow-heads to show the direction.

Answer

If you made your arrows like this, you are right!



The vessels from the hand and arm and the breast all drain into lymph nodes in your armpit.

PRACTICE EXERCISE #3

You're probably saying: "What does this have to do with me?" You probably remember that I told you before that your doctor removed some lymph nodes when your breast was removed. The ones removed were in your armpit and chest on the same side your breast and cancer tumor were removed -- your operated or involved side.

Now, let me tell you why the lymph nodes were removed. Sometimes when there is a cancer tumor, some of the cancer cells may break away from the tumor and enter the lymph drainage system. The lymph nodes trap these cancer cells so they don't spread any further. When they are in the lymph nodes, they sometimes grow and develop another cancer tumor. By removing your breast and the nodes in your chest and armpit, your doctor hopes to control the spread of cancer.

Practice Question #3

The reason your doctor removed the lymph nodes in your armpit and chest was:

A. to control the spread of cancer.
B. to prevent infection.

Answer

Good for you if you selected A. Removing the lymph nodes can control the spread of cancer from your breast.

Ready to go on? Let's.....

PRACTICE EXERCISE #4

You recall that the lymph drainage system helps fight infection and disease and drains excess water from tissues. When your doctor removed your armpit nodes, the operation interfered with these two functions for your arm and hand.

You may find that your operated arm and hand now swell sometimes and that if you get an infection in your hand or arm, your body would have difficulty fighting it.

Practice Question #4

When the lymph nodes are removed from your armpit, two results may follow. Select from A, B, and C below:

A. Your arm will become bruised.

B. Your arm and hand may swell.

C. It will be more difficult to fight infection in your arm and hand.

Answer

If you selected B and C, you are right! Removing lymph nodes may result in swelling and difficulty fighting infection.

PRACTICE EXERCISE #5

At the very beginning I said that I would help you learn how to care for your arm and hand. Now that you understand that you may have a problem with infection and swelling and that you need to prevent them, let's talk about "how".

You have already begun to do something to help prevent swelling. Your hand and arm, when you're not using them, are resting supported on two pillows. This helps drain water toward your heart.

You are already combing your hair, washing your face, brushing your teeth, feeding yourself --- generally doing a lot of things with your arm --- exercising it, and you'll learn more about exercise later.

But, what about when you go home and resume your normal activities? How can you continue to care for your hand and arm?

You can:

MAKE EVERY EFFORT TO AVOID CUTS, SCRATCHES, PIN-PRICKS AND HANGNAILS. A BREAK IN THE SKIN COULD LEAD TO INFECTION AND SWELLING.

Here are some ways <u>you can avoid breaks</u> in your skin:

No injections, vaccinations or bloodtests in your operated arm.

Don't use detergents or harsh chemicals which may cause chapped skin. Wear loose rubber gloves when washing dishes and use a good hand cream several times a day.

Be careful when manicuring. Use cuticle cream and remover instead of scissors.

Take care of cuts and scrapes. Wash the area well and cover it with a bandage. See your doctor if your hand or arm gets red, warm or swollen.

<u>Practice Question #5</u>

There are other examples of ways to avoid breaks in the skin. Which of the actions listed below would <u>prevent breaks in the skin</u>? Circle the correct number(s).

1) using an electric shaver instead of a razor for shaving your underarm

2) wearing a thimble when sewing

3) wearing loose fitting sleeves on dresses

4) wearing protective gloves when using steel wool

5) wearing canvas or heavy gloves when gardening and avoiding thorns

6) being careful near animals that bite or scratch

Answer

If you said that all but 3 would prevent breaks in the skin, BRAVO!

PRACTICE EXERCISE #6

Some more ways you can prevent swelling and infection are:

AVOID ANY BINDING OR CONSTRICTION WHICH MAY CAUSE SWELLING.

AVOID BURNS. THEY CAN LEAD TO INFECTION AND SWELLING.

Let's see if you can tell some ways to practice these habits.

Practice Question #6

Put a check (✔) next to the example that would prevent burns and a star (*) next to the ones that would prevent constriction.

1) Wear loose jewelry and loose dress sleeves.

2) If you smoke, hold the cigarette in your non-operated hand and use a lighter rather than matches.

3) Tan gradually. Avoid sunburn.

4) Use a long oven mit when reaching into a hot oven.

5) Don't have blood pressure taken on your operated arm.

Answer

You are right if you said that numbers 1 and 5 are the only ones that avoid constriction. All the rest help prevent burns.

PRACTICE EXERCISE #7

Finally, you should

AVOID DRAG OR PULL ON YOUR OPERATED ARM AND HAND

One way to do this is to

CARRY YOUR HANDBAG ON YOUR NON-OPERATED ARM.

Practice Question #7

See if you can select two more examples of this. Indicate which two actions would avoid drag and pull. Place a star (*) next to the correct answers.

1) Get help moving heavy objects.
2) Carry heavy packages in your non-operated arm.
3) Avoid injections and vaccinations in your operated arm.

Answer

You were correct to select only 1 and 2 as examples of ways to avoid drag and pull.

PRACTICE EXERCISE #8

There is one last thing that you can do to protect yourself.

WEAR A MEDIC-ALERT BRACELET WHICH SAYS:

"CAUTION: LYMPHEDEMA ARM - NO TESTS -

NO HYPOS."

Practice Question #8

Tell me why you think it would be important to wear the Medic-Alert bracelet as described above?

Answer

If you said that the Medic-Alert bracelet would help protect you from the wrong treatment in the event of an accident, you are correct.

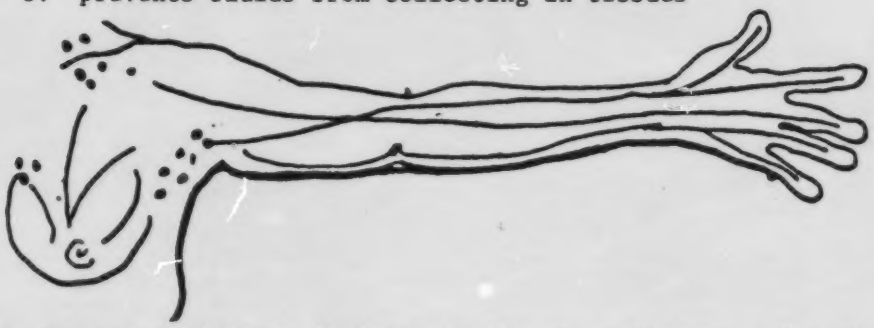
POST-TEST

1. Select two functions of the lymph drainage system:

   A. returns blood to the heart

   B. drains pus from infections

   C. prevents fluids from collecting in tissues



2. Show the direction of lymph drainage in the above diagram. Use an "arrow-head" at the end of the lines to indicate direction.

3. The doctor removed the lymph nodes in your armpit and chest so that (circle one):

   A. pain would be decreased.

   B. the spread of cancer is controlled.

4. Select two things that happen when the lymph nodes are removed from the arm.

   A. Lymph circulation may pool in the arm and the arm may swell.

   B. Infections in the arm are more difficult for the body to fight.

   C. The arm will become numb.

5. List at least five things you should <u>avoid</u> in order to <u>prevent infection and swelling</u> in your hand and arm after the mastectomy.

POST-TEST (con't)

6. List at least five things you should do to prevent infection and swelling in your hand and arm after a mastectomy.

Tear off this section and give it to me please. I would like to know your reaction to this package.

I liked this package because

You could improve it if you

POST-TEST ANSWERS

1. B and C

2.

3. B

4. A and B

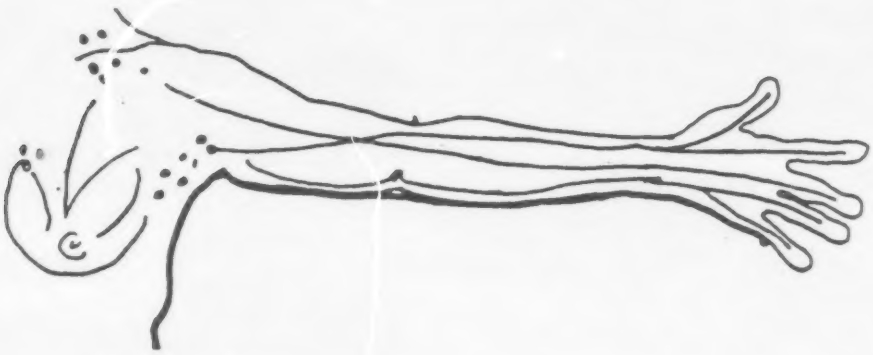
5. A. cuts, bruises, insect bites, burns
   B. strong detergents
   C. holding a cigarette in the involved hand
   D. carrying heavy bags or purses on the involved arm
   E. wearing tight sleeved clothes
   F. injections into involved arm
   G. blood pressure cuff applied to involved arm
   H. working near thorny plants
   I. blood drawn from this arm
   J. pick or bite cuticles
   K. wearing jewelry or wrist watch on involved arm
   L. reaching into a hot oven with involved hand

6. A. wear a loose rubber glove when using harsh detergents or chemicals
   B. wear a thimble when sewing
   C. apply a lanolin hand lotion several times a day
   D. tan gradually
   E. wear a Medical-Alert tag engraved with "Caution - Lymphedema arm - No tests - No Hypos".
   F. see your doctor if your arm gets red, warm or unusually hard or swollen.

ANSWER SHEET FOR POST-TEST

1. Circle two: A B C

2.



3. Circle one: A B

4. Circle two: A B C

5. A)

   B)

   C)

   D)

   E)

6. A)

   B)

   C)

   D)

   E)

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AEROSOL THERAPY TREATMENT

by

Richard Urband, ARRT

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TITLE OF PACKAGE:	Aerosol Therapy Treatment
AUTHOR:	Richard Urband, ARRT
INSTITUTION:	Foothill College, Los Altos, Calif.
INTENDED STUDENTS:	Patients
ESTIMATED WORKING TIME:	30 minutes
MATERIALS NEEDED:	Compressor/nebulizer aerosol therapy unit; liquid to aerosolize; chair with arms or table and chair.
REVISED:	September 1, 1977

NOTE: Effective use of this unit requires that materials listed above be available.

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INTRODUCTION

"Take this home and use it!"

To a patient with respiratory disease, this may be the start of his home care and rehabilitation. Very specialized equipment and techniques must be accompanied by more than the simple command: "Do it!"

Once you have studied and understood this manual, you, the aerosol therapy patient, will be trained in an easy, effective routine for self-care. (Maintenance, cleaning, and trouble-shooting are not part of this unit.)

Overall Objective

After studying this unit, you will be able to assemble, load, and effectively operate a compressor/nebulizer aerosol therapy unit.

You will:

Learn to assemble nebulizer/compressor unit

Learn to load nebulizer with prescribed medication.

Use unit effectively by:

a. assuming proper position.

b. holding nebulizer in proper position.

c. testing nebulizer function.

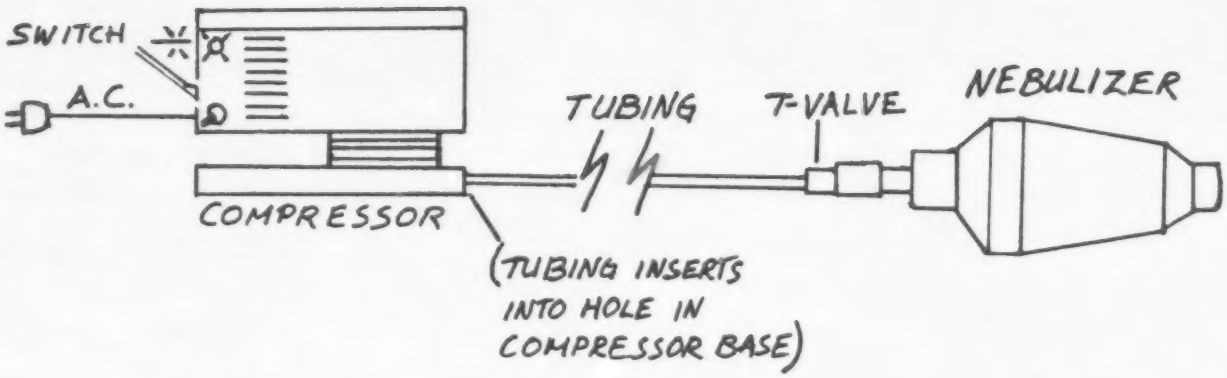
d. performing proper ventilatory pattern.

e. co-ordinating nebulization with respiration.

Take a few minutes to study this diagram before turning the page.

ILLUSTRATION #1

Assembled Unit

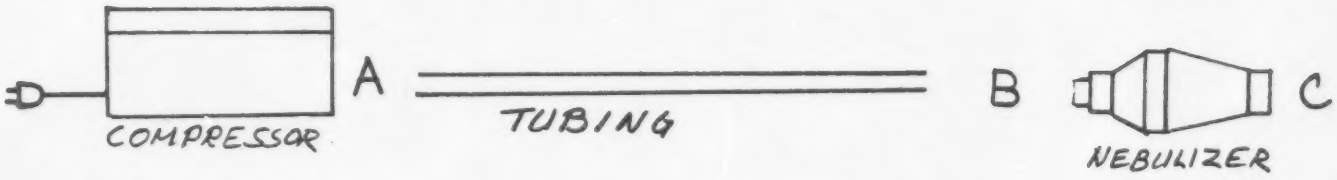


PRACTICE EXERCISE #1

This equipment (Illustration #1) turns liquid into a breathable mist (nebulization). Filtered room air enters the compressor and is sent through tubing to a T-valve and nebulizer unit. The open T-valve allows compressed air to escape from the system without activating the nebulizer.

Practice Question #1

Remembering Illustration #1 (look back if you need to) tell me - the T-valve is inserted at what point in the circuit - A, B, or C? Circle the correct letter on the diagram.



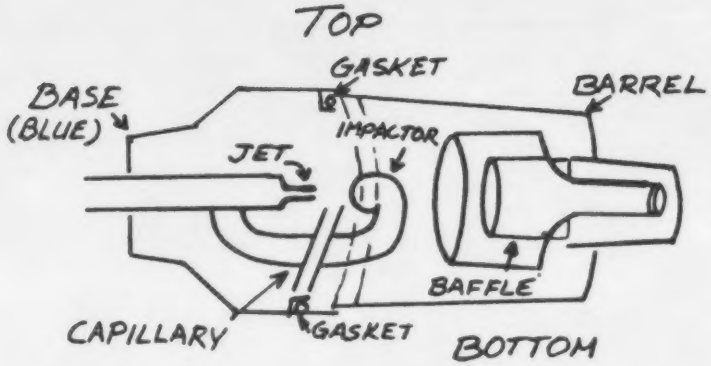
Answer

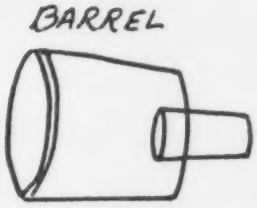
Circle B. Proceed to #2 if you were sharp enough to pick this answer. (If not, review the input and try again - Don't give up now.)

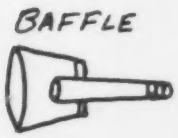
This is quite a bit to learn, but it will be worth your time to study the diagrams before continuing to the next page.

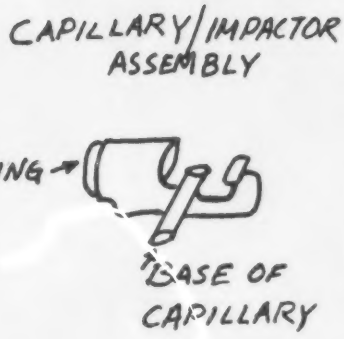
ILLUSTRATION #2

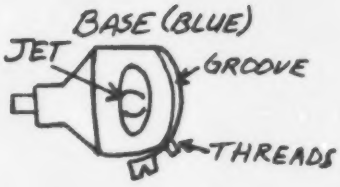
Maxi-Myst Nebulizer (Cross-section)









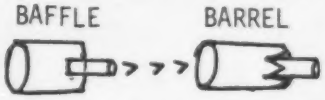


PRACTICE EXERCISE #2

Assembly of the nebulizer requires four steps: (Refer to Illustration #2 and disassembled nebulizer.)

1. Position the gasket (O-ring seal) below the threaded portion of the base. The gasket helps prevent leakage of medication.

2. Place the ring of the capillary/impactor assembly over the jet portion of the base, and rotate until seated in notch below jet.
3. Insert baffle fully into barrel.



4. Screw barrel and base snugly together to prevent leakage.

Practice Question #2

a. In your own words, list the four steps in assembling a nebulizer.
b. What is wrong if medication leaks from the joint between the base and barrel of the nebulizer?

Check your response with the answer on the next page.

Answer

a. Check your answer with the four steps listed on page 5.

b. There are two possible explanations - no gasket and/or loose connection between base and barrel. If you got both - great! If you got one, take time to review before continuing.

PRACTICE EXERCISE #3

The prescribed medication may be poured, dropped or injected through the open end of the barrel into the base of the nebulizer. 5cc, or approximately one teaspoonful, is the maximum volume to be used (excess medications may be spilled or interfere with nebulization).

Practice Question #3

How much medication may be placed in the nebulizer and how is it inserted?

Answer

Up to 5cc (as prescribed by a physician); poured, dropped, or injected through the open end of the barrel into the base. (You're doing great so far.)

PRACTICE EXERCISE #4

The nebulizer is hand-held horizontally so that the capillary is vertical and the capillary's base is immersed in the medication. No aerosol (mist) will be generated if the T-valve is open, if no medications are present, if the capillary is rotated or plugged, or if the compressor is off.

Practice Question #4

a. In your own words, describe the position in which you should hold the nebulizer.

b. What would be the result of rotating the nebulizer so that the base of the capillary doesn't extend into the medication?

Answer

a. You're absolutely right if your answer included these three points: 1) hand-held horizontally; 2) capillary is vertical; 3) base is immersed in medication.

b. No aerosol (mist) production. (keep up the good work!)

PRACTICE EXERCISE #5

Proper positioning involves being comfortable and relaxed - seated, back straight, leaning slightly forward, elbows supported, hand at mouth level, loose clothing.

Practice Question #5

In your own words, describe the position you should be in while taking an aerosol treatment.

Answer

You're right if your answer stressed comfort, relaxation, and included being seated, back straight, leaning slightly forward, elbows supported, hand at mouth level. Loose clothing is important, too.

PRACTICE EXERCISE #6

Test the nebulizer by covering the opening on the side of the T-valve. If the unit has been correctly assembled, loaded, and positioned, mist will come from the open end of the barrel.

Practice Question #6

Assuming proper assembly, loading, and positioning of the unit, what will happen if the compressor is turned on and the T-valve closed by finger pressure?

Answer

Aerosol will appear as a mist coming from the nebulizer barrel.

PRACTICE EXERCISE #7

Breathe in the following three steps for medication to reach the lungs effectively.

1. Exhale slowly and comfortably deeply (used "pursed lips" if it helps).
2. Inhale aerosol slowly and deeply through wide open mouth, with nebulizer barrel 1" to 2" from lips.
3. Hold breath 2-3 seconds.

Practise Question #7

You need to memorize these three important steps. Say them over to yourself while practicing the breathing cycle without the nebulizer.

Now for a quick memory check - What is step #2 of the breathing cycle during your aerosol treatment?

Answer

Inhale the aerosol slowly and deeply through wide open mouth, keeping 1" to 2" between lips and nebulizer barrel. (Almost through - you'll be a "super therapist" in a minute.)

PRACTICE EXERCISE #8

Aerosol production is controlled by the T-valve. Open valve - no aerosol; closed valve - aerosol production (if all other conditions are acceptable).

Practice Question #8

Is aerosol produced when the T-valve is open or closed?

Answer

Aerosol is produced when the T-valve is closed. An open T-valve shuts off the aerosol production.

PRACTICE EXERCISE FOR OVERALL OBJECTIVE

Review steps 1 - 8. Integrate to one process.

Practice Question

Using the diagrams of an aerosol system and an assembled and labeled nebulizer, and following the instructions for loading, positioning, breathing and coordination, take an aerosol treatment. (Repeat with aid of diagrams and input until you can do it by yourself.)

Answer

The lesson was successful if you administered aerosol without discomfort or waste. Avoid: Poor positioning of body or nebulizer, poor coordination of breathing and aerosol, leaks, absence of aerosol.

Now you're ready for a quick check of what you've learned. Please turn to the Post-Test on the next page.

POST-TEST

By now, you should be gaining some confidence in used of your nebulizer. You can check your skills with the following test, which will also show the author how successful his instruction was.

1. Start from scratch and assemble the nebulizer.
2. Join the nebulizer, T-valve, tubing, compressor into a complete unit.
3. Add the medication to the nebulizer. State how much medication you added. Where in the nebulizer did you pour, drop, or inject it?
4. Describe the correct posture you should assume for your aerosol therapy treatment.
5. Tell how you should hold the nebulizer.
6. Is the T-valve open or closed when medication is coming out?
7. List the three steps in your breathing sequence for an aerosol treatment.
8. Give yourself an aerosol therapy treatment.

POST-TEST ANSWER KEY

1. You did it correctly if your nebulizer assembly matches the four steps on Page 5 and the diagram on Page 4.

2. You're right if your full assembly matches the diagram on Page 2 and works.

3. You added up to 5cc (as your doctor prescribed) and poured, dropped or injected the medication through the open end of the barrel into the base. Right?

4. Of course, your answer mentioned comfort and loose clothing, plus being seated, back straight, leaning slightly forward, elbows supported, hand at mouth level.

5. Did you remember these three points? 1) hand-held horizontally; 2) capillary vertical; 3) base immersed in medication.

6. Closed.

7. a) exhale slowly and comfortably deep
   b) inhale aerosol slowly and deeply through wide open mouth, with nebulizer barrel 1" to 2" from lips
   c) hold breath 2-3 seconds.

8. You're successful if you completed the treatment without discomfort or waste, checking the positioning of your body and the nebulizer, and the co-ordination of your breathing. You made sure the aerosol was coming out evenly without leaks, of course.

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A PROJECT OF THE LEAGUE FOR INNOVATION IN THE COMMUNITY COLLEGE

FAMILY HELP FOR THE STROKE PATIENT

by

Marjorie A. Griffith, R.N.

Illustrations by Temple Harris

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TITLE OF PACKAGE:	Family Help for the Stroke Patient
AUTHOR:	Marjorie A. Griffith, R.N.
INSTITUTION:	St. Joseph's Hospital, Stockton, Calif.
INTENDED STUDENTS:	Family members of stroke patients
ESTIMATED WORKING TIME:	30 minutes
MATERIALS NEEDED:	None

FIELD TEST COPY

NOTE TO NURSES: This unit is to be given to family members before the stroke patient is discharged from an acute care facility. When you give the unit to family members, you accept the responsibility to be available to help them get the information needed to complete Part II of the unit.

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INTRODUCTION

You, the family member of a stroke patient, are experiencing perhaps the most difficult time of your life. Your loved one has been very ill with an illness you may not comprehend. Hopefully, the time is close when you can take him/her home. I want you to be able to help with the health measures that will restore him/her to as many activities of daily living as possible.

To this end, I have prepared this self instruction unit hoping to provide you with some insight into the nature of the illness we call stroke. The unit takes you through steps that will help you identify the physical changes in your family member. You will also be guided through the essential health measures you will need to know to continue the rehabilitation of your loved one.

Overall Objective

You, the family member of the stroke patient, will be aware of the limitations and be able to assist in the return to activities of daily living of the patient upon discharge from the acute care situation.

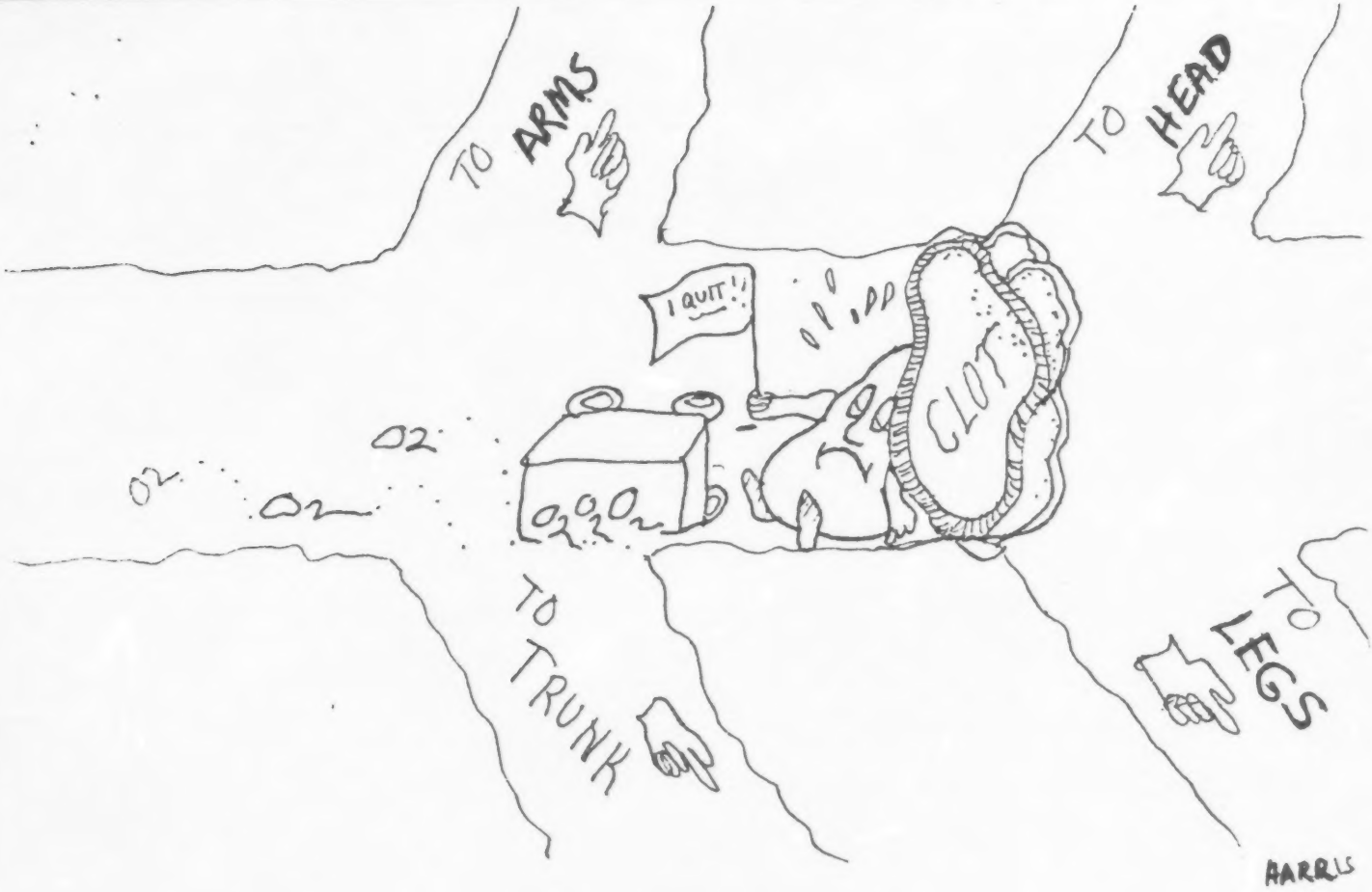
Sub-Objectives

You will:

1. Identify the correct anatomical location and physiological reason for stroke behavior.
2. Identify important health care measures in regard to paralysis, aphasia (inability to communicate with words), and agraphia (inability to write) where pertinent to the stroke patient.

EXERCISE #1

Our blood is a very hard working system. One of it's main jobs is to distribute oxygen (O_2) to all parts of our body via the blood vessels.



If something such as a clot blocks his way or a vessel ruptures and spills his load he cannot do his job of supplying the oxygen. If the oxygen is prevented from getting to the brain, such as happens with a stroke, several areas of the brain may cease to function.

Practice Question

When a blood vessel between our heart and brain gets blocked or it's wall ruptured allowing blood into the tissues, what happens to the brain?

Feedback

If you said that the supply of oxygen is cut off or limited to the brain and that some areas may stop functioning, you are right."

EXERCISE #2

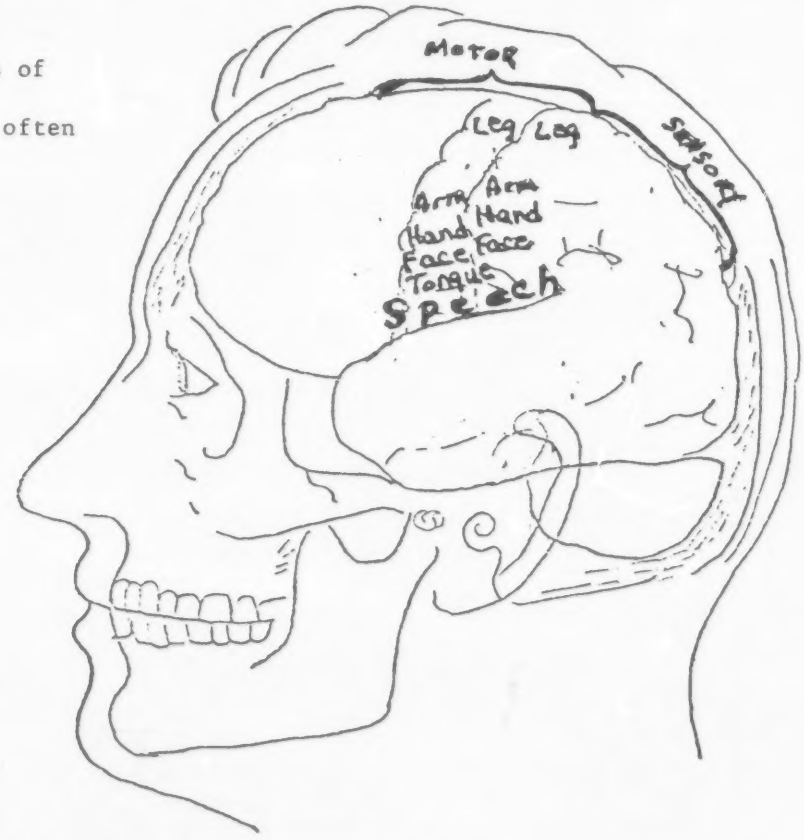


Fig. #1 - Areas of the Brain most often affected.

The motor or voluntary movement of face, leg and arm muscles may be affected by total or partial paralysis. The muscles may or may not be without sensation. The speech area of the brain may be affected to such a degree that the patient may be unable to speak, may be able to speak with only a jumble or jargon of words, or may speak with a slurring effect that makes him/her difficult to understand. The ability to write may also be limited (not necessarily because of hand paralysis but because he/she may not be able to arrange thought processes). The medical word for this problem is AGRAPHIA.

Practice Question

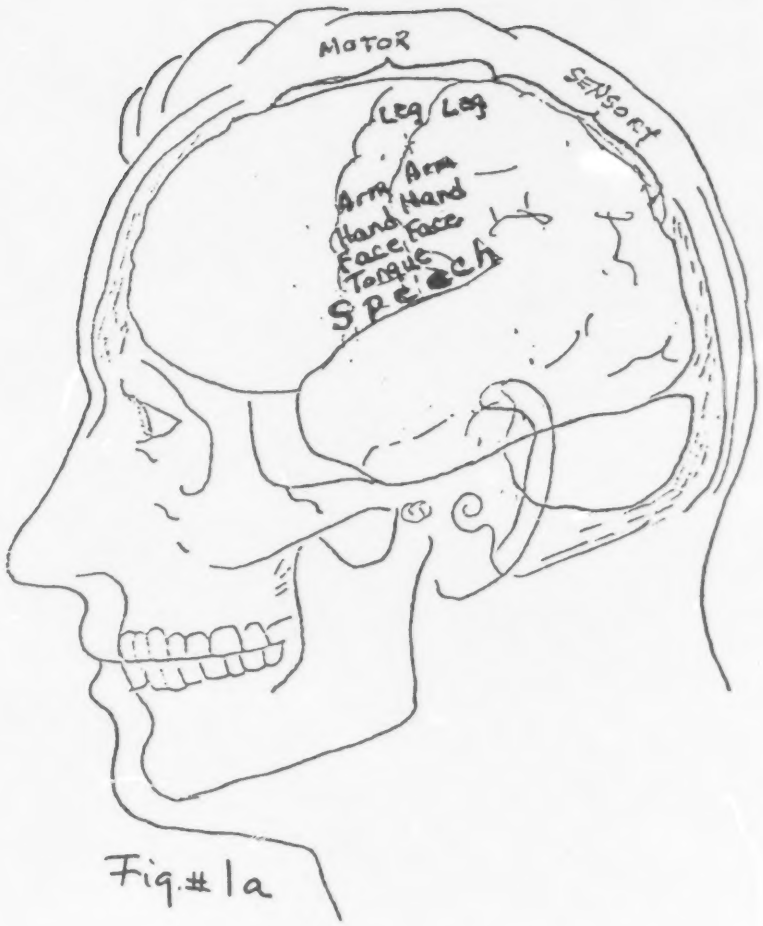


Fig. # 1a

Your family member after suffering a stroke has no paralysis of arms or legs. She/he does have some slurring of speech. Refer to Figure #1a and circle the area of the brain that has been without oxygen.

Feedback

If you circled SPEECH, you are well on your way to understanding the reasons for stroke behavior.

EXERCISE #3

When facial paralysis is present, there are special problems to consider. Because one side of the face has little or no feeling, food can lodge in the cheek and go unnoticed unless good mouth care is practiced. Often saliva will escape from the corner of the mouth and go unnoticed by the patient because of lack of sensation. Wipe the saliva or mention it as unobtrusively as possible.

Practice Question

Why is good mouth care essential if the facial muscles of the patient are affected?

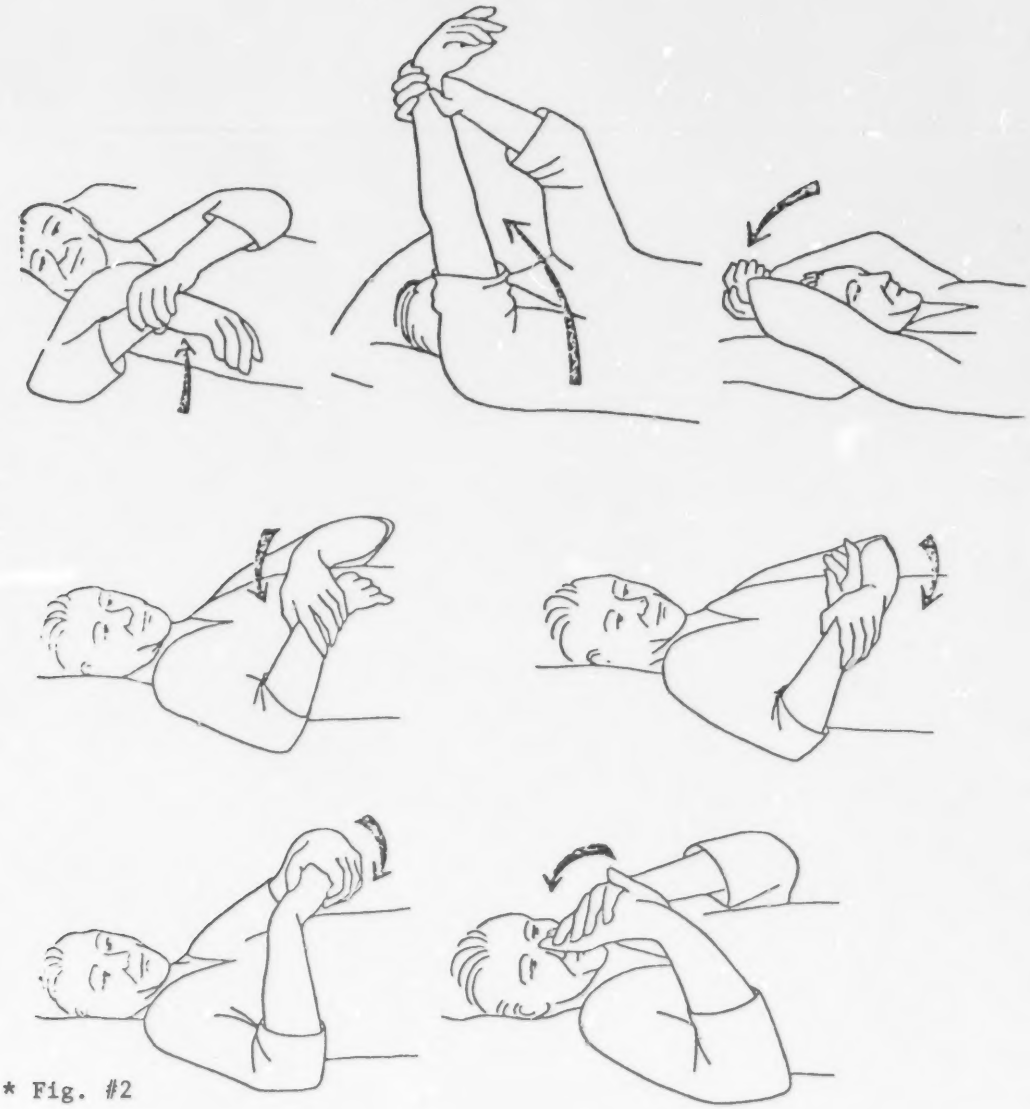
PRACTICE EXERCISE #3 (Cont.)

Feedback

I hope you haven't said "because I own stock in the Grope Mouthwash company."

(I know you remembered that since the side of the face does not feel it, food can stay in the cheek unnoticed by the stroke patient.)

EXERCISE #4

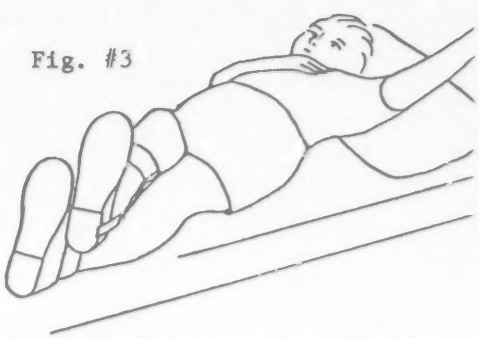


* Fig. #2

Exercises for a weak or paralyzed arm may be done by the patient or family member. See Fig. 2; (Encourage patient to exercise several times a day if she/he is able to.)

Weak or paralyzed legs must also be exercised to the fullest range of motion possible. Patient can help self move leg with other leg as shown in Fig. 3.

Fig. #3



*Figures reproduced with permission from The Lippincott Manual of Nursing Practice, Rehabilitation, 2nd Ed., by Gerald G. Hirchberg, Leon Lewis, and Patricia Vaughan.

PRACTICE EXERCISE #4 (Cont.)

Practice Question

A weak or paralyzed limb should be put through what medical people call complete range of motion. This means that the affected limb must be exercised every way it can move. You as a family member should:

1. Do it occasionally
2. Encourage the patient to use his unaffected limb to exercise the affected limb.
3. Take him/her to a physical therapist.

Feedback

If you chose #2, I feel you are now ready for one of my most important messages. That is------the more you can encourage the patient to do for himself, the better he will feel about himself and the faster he will improve in his rehabilitation.

EXERCISE #5

In the event that your family member has a total paralysis on one side, it is extremely important that his/her position is changed frequently - (every two hours is not too often). Clean skin, turning, massaging bony areas and exercising muscles will keep the gremlin "BED SORES" away.

Practice Question

What is one of the greatest problems the stroke patient with one sided paralysis must try to avoid?

PRACTICE EXERCISE #5 (Cont.)

Feedback

You're right! BED SORES! and believe me, PREVENTION is far easier and takes less time than trying to CURE them.

EXERCISE #6

Weakened or paralyzed legs will stay in a permanent position of flexion

(that is - both knees and hips will not straighten out)

if patient is allowed to sit for hours at a time. Frequent position changes (lying down face down is an excellent change) and walking if able are essential health care measures.

PRACTICE EXERCISE #6 (Cont.)

Practice Questions

Which family member recognizes the principle of flexion prevention?

a. "Bring Mom to the kitchen in her wheelchair. Dinner's ready!"

b. "Com on Mom--up in your walker. Let's go to dinner!"

Feedback

If you said (b) then you are really with me in this effort to rehabilitate your stroke patient. Sometimes being kind isn't what is required. Sure - it's easier to wheel Mom in to dinner, and she may enjoy the attention. But you will do her a far better kindness to encourage her to exercise and walk (if possible.)

EXERCISE #7

Stroke patients whose speech areas are affected often cannot make themselves understood even if they <u>can</u> speak. They may mouth unintelligable words or they may use a string of cuss words that they have never used before. Be patient with them. Try to understand what they are saying. Encourage them to go slowly, to try again and again. Never tell them you don't understand. (The medical word for this problem is APHASIA.)

PRACTICE EXERCISE #7 (Cont.)

Practice Question

Your family member who has had a stroke says "yes" but shakes his head negatively. He/she may say "DAMN IT" when he/she never used a cuss word before to your knowledge. Words may tumble out one upon the other with no relation to each other or they may not even be words you've every heard.

How might you cope with this situation?

1. Try to understand his/her jargon.
2. Tell him/her not to talk, you can't understand him anyway.
3. Be patient
4. Encourage him/her to try again and again.

Feedback

I'm sure by now that you know that #2 is certainly not the way to help. All of the others of course are essential methods of support and encouragement.

If your family member does indeed have a severe aphasia problem, be sure to inquire about the help of a speech therapist. There are books on how to help the patient with aphasia. There is also a packet like this one you are working on that deals with aphasia.

EXERCISE #8

Your family member has <u>real cause</u> for his irritability. The frustration he is undergoing may be beyond your understanding. Try to be patient and remind yourself that he/she has less control over his feelings than he used to have. Your emotional support and continued encouragement to "keep trying" are the best tools you have toward his/her rehabilitation.

PRACTICE EXERCISE #8 (Cont.)

Practice Questions

The mother of this family has had a stroke that has involved her muscle and speech areas. Which comment shows understanding of Mom's actions?

A. "Mom seems to have given up wanting to live since her stroke. She throws things, won't do what you tell her and is so irritable!"

B. "Mom's inability to make herself understood since her stroke is real cause for her depression and frustration."

C. "Why is Mom so mad? All I did was try to feed her!"

Feedback

"B" is the answer I want you to choose. If you chose A, I can see why, because this is often the way it seems. But if you can help them to understand that you have some appreciation of what they are going through, perhaps the urge to "give up" will not present itself. Remind yourself frequently that his/her control of feelings will increase with continued encouragement and understanding.

POST TEST QUESTIONS

I. If the supply of oxygen to the brain is interrupted what effect might you expect of the brain?

II. If the stroke patient has paralysis of his/her arm and leg muscles, but no apparent speech difficulties, you would know that the following areas of the brain were probably affected by the lack of oxygen. (Check as <u>many</u> are are right.)

1. Arm
2. Face
3. Speech
4. Writing
5. Leg
6. All of these

III. It will be important for you as a family member to be able to match the following patient problems with the right actions or results.

_____1. Facial paralysis

_____2. Weak right arm

_____3. Paralyzed side

_____4. Permanent flexion of knees and/or hips

_____5. Patient says oposite of what he means

_____6. Patient irritable, throws things

a. Try to understand his jargon; be patient

b. Food may be lodged in his cheek

c. Encourage patient to exercise right arm with left arm

d. Remind yourself he has less control over feelings and <u>real</u> <u>cause</u> for frustration

e. Do not allow patient to sit for long periods

f. Will be vulnerable to bed sores

ANSWERS TO POST-TEST

Part 1

I. The areas of the brain deprived of oxygen may stop functioning.

II. 1,4, and 5

III. 1b; 2c; 3f; 4e; 5a; 6d

TAKE A BREATHER OR CONTINUE DIRECTLY TO PART II IF THE NURSE WHO GAVE YOU THIS LEARNING UNIT IS AVAILABLE TO HELP YOU NOW.

Sub-Objectives Part II

(NEED ASSISTANCE OF NURSE)

Family member will:

I-List limitations such as paralysis, aphasia, agraphia as pertains to their ill member.

II-State to dismissing nurse the drug therapy and laboratory test regime the patient must follow on dismissal.

III-Have demonstrated their ability to continue those rehabilitative measures as have been started in the acute hospital setting.

PRACTICE EXERCISE #1

PART II

Now (or when possible), if you have not already done so, talk with the nurse and/or doctor and ask them to tell you and show you exactly what physical changes your family member has undergone.

Practice Question #1 (of Part II)

Identify the limitations of your family member. What areas, if any, are paralyzed or weak?

Does your family member have trouble making himself/herself understood?

Feedback

Show the nurse your list to be sure you have correctly understood the physical changes that have occured to your family member.

Practice Questions #2 of Part II

Knowing the physical limitations of your family member, decide which areas of health care you must be concerned with regarding their rehabilitation and check them off.

1. Facial paralysis	Requires good mouth care
2. Weak arm	Requires daily exercise
3. Paralyzed side	Requires good skin care and frequent position change
4. Prevention of flexion of knees and hips	Requires NO long periods of sitting
5. Difficulty with speech	Requires a great deal of patience and trying to understand his/her jargon
6. Patient is irritable, throws things	Requires that you remind yourself, over and over, how terribly frustrated your family member must feel

PRACTICE EXERCISE #2 (Cont.)

PART II

Feedback

Once again, check with the nurse to see if you have overlooked any important aspect of care toward the return to activities of daily living for your loved one. (Are you confident that you can perform these activities. Ask NOW for help or advice.)

PRACTICE EXERCISE #3 PART II

Check with the nurse about the medications and possible laboratory tests your family member may be having.

Ask: 1. What is the medication called?

2. What does it do?

3. How often do I give it?

4. Are there any side effects I should watch for?

5. If a laboratory test is ordered, where do we have it done?

Practice Question #3 Part II

List without looking back:

1. What is the name(s) of medications?
2. What do they do?
3. How often do I give it?
4. Are there side effects to watch for?
5. Any laboratory tests ordered? What?
6. Where do you go to have it taken?

Feedback

Now check your list with the one you obtained from the nurse. If you've got them right - bravo!

If not - have nurse check you again.

YOU CAN NOT BE TOO CAREFUL WHEN IT COMES TO GIVING AND TAKING MEDICATIONS!

YOUR FINAL TESTING IS NEXT - THEN YOU'RE READY TO TAKE THE PATIENT HOME AND HELP HIM/HER ALONG THE ROUTE TO RECOVERY.

POST TEST QUESTIONS. PART II

I. What physical changes does your family member have?

(check as many as apply)

1. One side of face paralyzed
2. One arm paralyzed
3. Just the hand is weak
4. One leg is paralyzed
5. One leg is weak
6. Can't make himself understand
7. Can be understand but speech is slurred
8. Has trouble swallowing
9. Can't communicate even with writing

II. What medications is your family member taking home with him/her?

_____ _____

Are there laboratory tests to be done along with the medications? ____

If yes, what are they? _____

Where will you take him to have the tests done? _____

III. Before you take your family member home demonstrate to the nurse that you know how to continue the exercises needed to help your family member with his/her return to activities of daily living.

ANSWERS TO POST-TEST

Part II

I. Answer will indicate awareness of family members regarding patients disabilities.

II. Answer will indicate family members understanding of drug therapy to be followed.

III. Demonstration will insure that full instructions have been understood.

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